PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Barker, et. al.	§	Group Art Unit: 2179
Serial No.: 10/046,940	§	Examiner: Huynh, Ba
Filed: 1/14/2002	§	Attorney Docket No. RSW920010049US1
Title: System and Method for Mapping Management Objects to Console Neutral User Interface	§	IBM Corporation Software Group IP Law -- T81/503 3039 Cornwallis Road Research Triangle Park, NC 27709

DECLARATION UNDER 37 C.F.R. § 1.131

Hon. Commissioner of Patents and Trademarks
Washington, D.C. 20231

Sir:

Kevin S. Barker declares as follows:

1. I am an Applicant for the patent application entitled "System and Method for Mapping Management Objects to Console Neutral User Interface," Serial No. 10/046,940, filed January 14, 2002, and an inventor of the subject matter described and claimed therein.

2. Prior to October 30, 2001, I completed and reduced to practice, in the United States of America, the invention described and claimed in the subject application, as evidenced by the following:

   a) I submitted IBM Invention Disclosure Forms RSW8-2000-0209, RSW8-2000-0210 (which included a nine-slide presentation), RSW8-2000-0211, RSW8-2000-0212, RSW8-

2000-0213, and RSW8-2000-0224, attached as Exhibit A hereto, which describe the invention described and claimed in the subject application.

3. Each of the dates deleted from Exhibit A is prior to October 30, 2001.

4. I further declare that all statements made herein of my own knowledge and all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful and false statements and the like so made are punishable by fine or imprisonment or both under § 1001 of Title 18 of United States Code and that such willful and false statements may jeopardize the validity of the above-referenced application and any patent issuing therefrom.

FURTHER DECLARANT SAYETH NOT.

Kevin S. Barker Date: Oct 20, 2004

Kevin S. Barker

Disclosure RSW8-2000-0209

Created By: Jim Thorpe **Created On:** [redacted] 01:42:20 PM
Last Modified By: Jim Thorpe **Last Modified On:** [redacted] 08:21:09 AM

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Required fields are marked with the asterisk (*) and must be filled in to complete the form.

Summary

Status	Under Evaluation
Processing Location	RSW
Functional Area	Wicher: Integrated Solutions
Attorney/Patent Professional	Gerald R Woods/Raleigh/IBM
IDT Team	Steven Miller/Raleigh/IBM; Art Francis/Raleigh/IBM; David Kuehr-Mclaren/Tivoli Systems@Tivoli Systems; Allan K Edwards/Raleigh/IBM; Mark Peters/Raleigh/IBM; R Redpath/Raleigh/IBM; Scott Rich/Raleigh/IBM; Thom Haynes/Raleigh/IBM; Keith Purcell/Raleigh/IBM; Virinder Batra/Raleigh/IBM; Jay Casler/Raleigh/IBM
Submitted Date	[redacted] 02:37:02 PM
Owning Division Select	SWSD
PVT Score Calculate	20
Incentive Program	
Lab	
Technology Code	

Inventors with Lotus Notes IDs

Inventors: Jim Thorpe/Raleigh/IBM, Kevin Barker/Raleigh/IBM@IBMUS, John Diller/Raleigh/IBM, Jim Gay/Raleigh/IBM, Margaret Hedstrom/Raleigh/IBM, Carol Persche/Raleigh/IBM, Mohamad Salahshoor/Raleigh/IBM

Inventor Name > denotes primary contact	Inventor Serial	Div/Dept	Manager Serial	Manager Name
Thorpe, J. G. (Jim)	042864	7J/Z4BA	436932	Palistrant, N.C. (Nell)
> Barker, Kevin S.	163121	7J/PE9A	463179	Reynolds, Patrick P.
Diller, J.E. (John)	600973	7J/Z4BA	436932	Palistrant, N.C. (Nell)
Gay, James L. (Jim)	928179	7J/Z4BA	436932	Palistrant, N.C. (Nell)
Hedstrom, M. M. (Margaret)	017624	7J/Z4BA	436932	Palistrant, N.C. (Nell)
Persche, C.J. (Carol)	008791	7J/Z4BA	436932	Palistrant, N.C. (Nell)
Salahshoor, Mohamad R.	246173	7J/Z4BA	436932	Palistrant, N.C. (Nell)

Switzer, John

Inventors without Lotus Notes IDs

IDT Selection

IDT Team:	Attorney/Patent Professional:
Steven Miller/Raleigh/IBM Art Francis/Raleigh/IBM David Kuehr-Mclaren/Tivoli Systems@Tivoli Systems Allan K Edwards/Raleigh/IBM Mark Peters/Raleigh/IBM R Redpath/Raleigh/IBM Scott Rich/Raleigh/IBM Thom Haynes/Raleigh/IBM Keith Purcell/Raleigh/IBM Virinder Batra/Raleigh/IBM Jay Casler/Raleigh/IBM	Gerald R Woods/Raleigh/IBM

Response Due to IP&L : [redacted]

Main Idea

***Title of disclosure (in English)**

System Management User Interface Framework for supporting multiple Console plug-ins

***Idea of disclosure**

1. Describe your invention, stating the problem solved (if appropriate), and indicating the advantages of using the invention.

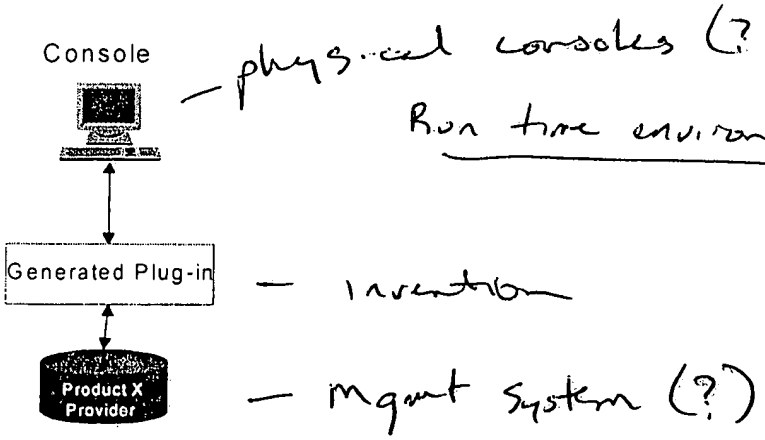
Problem:

Products today need to support one or more management systems. The AdapterBuilder effort is attempting to let products define management once and generate a plug-in for each of the needed management systems. This plug-in generation covers several areas:

- Mapping models from a standard object model to the specific interfaces needed for each management console (DLLs, Java, COM, etc)
- The popup panels for:
  - propertysheets
  - object creation
  - method execution

  } are these console features?
- Other console features such as:
  - object navigator (plus object views - ie. details, large icon, small icon, list, etc)
  - context menus
  - toolbars
  - help
  - status lines
  - titles

The following illustration depicts the concept at a high level with respect to the run time environment. The generated plug-in has to know how to transform the mapping model into the interfaces defined by a console. The generated plug-in must know what objects should be added to the console. The generated plug-in must know how to relate methods against an object. When an action is taken against an object, a processing engine will invoke a provider which will actually carry out a product specific functionality.



— physical consoles (?)

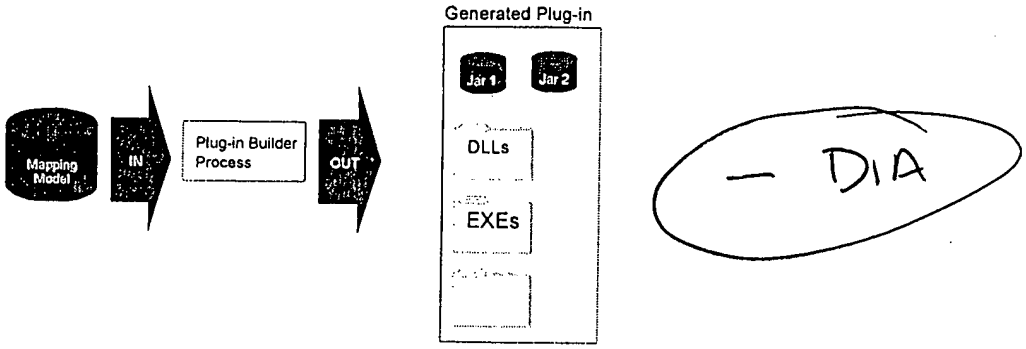
Run time environment

— invention

— mgmt system (?)

Solution:

The following illustration depicts at a high level what the plug-in builder process involves.



The solution consists of several steps which are all tied together via something called a plug-in builder process. The plug-in builder process consists of several algorithms that drive the generation of a plug-in. The specific steps include the following:

1. We are trying to make sure the management model is rich enough to do the mapping from one definition to multiple consoles. This involves evaluating the management model passed as input.

2. As as result of evaluating the management model, we then generate needed GUI panels to support the model. The different panels could be generated for each of the consoles to conform to each consoles specific style. In our implementation, we generated the panels once and used the same panels in all plugins.

The above is performed by an algorithm which is used to take the mapping model and transform it into a suitable format to be viewed and manipulated via a graphical user interface, independent of the intended target console. For further information, refer to patent "Mechanism for Mapping Business Defined Managed Objects to Console Neutral Graphical User Interface".

3. We also allow products to customize the panels. This way a product can use our toolkit to generate the panels, then make the needed modifications once, repackage the plugin based on the modifications made, and use the panels in many management consoles. These modifications do not require any changes to the generated code and the generated code conforms to the Unity GUI Toolkit for easy customization.

4. Several algorithms are used to generate the code that is capable of interfacing with a console. The existing consoles (Operations Navigator and the Microsoft Management Console are two examples) have established interfaces (As example, how to add nodes to the console or how to add menu items to a node).

The algorithms used involve:

- generating code, some of it based on skeleton code, which will utilize other run time algorithms that understand the mapping model (refer to #5 below)
- compiling the generated code into an execuable entity which will be capable of using the mapping model and interfaces needed to interact with a console.

NOTE: Are the details of the above algorithms patentable themselves?

5. There also exists some run time algorithms each console specific plugin utilizes. They include:

- transform the mapping model into an algorithm/method to obtain context menu items. Refer to patent "An algorithm/method for obtaining context menu items from UML/CIM" for details.
- transform the mapping model into a tree model. Refer to patent "An algorithm for mapping UML topology model to a tree model" for details.
- transform the mapping model into something that is NLS translatable. Refer to patent "NLS: CIM, Messages, etc" for further details.
-

2. How does the invention solve the problem or achieve an advantage,(a description of "the invention", including figures inline as appropriate)?
See above

3. If the same advantage or problem has been identified by others (inside/outside IBM), how have those others solved it and does your solution differ and why is it better?
Each customer can decide which management console to standardize on for their company. Today, products must create custom plug-ins by hand for each console they want to support with little or no code re-use. With this solution, products create an object model once and can generate plug-ins for as many different consoles as needed.

4. If the invention is implemented in a product or prototype, include technical details, purpose, disclosure details to others and the date of that implementation.
Working in conjunction with Tivoli, our organization has developed a proof of concept product for the above. We are still working with Tivoli and evaluating whether this becomes a Tivoli product or an internal IBM product. Results so far have been positive. The internal project completed [redacted]

***Critical Questions (Questions 1 - 7 must be answered)**

***Question 1**	
On what date was the invention workable? [redacted] **Please format the date as MM/DD/YYYY** (Workable means i.e. when you know that your design will solve the problem)	

***Question 2**	
Is there any planned or actual publication or disclosure of your invention to anyone outside IBM?	○ Yes ● No
If yes, Enter the name of each publication or patent and the date published below. Publication/Patent: Date Published or Issued:	
Are you aware of any publications, products or patents that relate to this invention?	○ Yes ● No
If yes, Enter the name of each publication or patent and the date published below. Publication/Patent: Date Published or Issued:	

***Question 3**	
Has the subject matter of the invention or a product incorporating the invention been sold, used internally in manufacturing, announced for sale, or included in a proposal?	○ Yes ● No
Is a sale, use in manufacturing, product announcement, or proposal planned?	○ Yes ● No
If Yes, identify the product if known and indicate the date or planned date of sale, announcements, or proposal and to whom the sale, announcement or proposal has been or will be made. Product: Version/Release:	

Patent Value Tool (Optional - this may be used by the inventor and attorney to assist with the evalu

(The Patent Value tool can be used by you or the evaluation team to determine the potential licensing value of your invention.)

These are the answers which were entered into the **Patent Value Tool.**

Market

What is the anticipated annual market size (in dollars) that will be captured by your invention?
Too new to estimate
Reason(s) for above Answer All products need to be managed and a certain amount of management is given away for free. The plug-ins generated will probably be for free solutions such as MMC and Operations Navigator. We do not know how to calculate the additional sales that will be made because of this.

CLAIMS

Question 1 - How new is the technical field?
Emerging
Reason(s) for above Answer Systems Management problems are old, but still not solved. Using an object model to generate console plug-ins is new. Our solution is using the emerging CIM standard for management objects. We are working with Tivoli to have our solution take advantage of the next generation of models as well.
Question 2 - How central is the invention to the product(s) which might be expected to contain the invention?
Main
Reason(s) for above Answer Depending on the product, this will range from peripheral to essential. For products that just need multiple console support for marketing purposes, this is peripheral. But products such as WebSphere must integrate with many products and many management systems. This solution can dramatically lower the cost of ownership for customers. Also, the reason we are working with Tivoli is that the object model we want to consume will be the next standard for Tivoli ready.
Question 3 - What is the scope of the claim?
Broad
Reason(s) for above Answer There are many management consoles today, the model we work from must be rich enough to generate plug-ins for all of these consoles, as well as generating usable interfaces. Our approach also allows customization of GUIs to give that human touch. Also, this can be applied to CIM and the Microsoft extentions to CIM. All Microsoft backoffice products now ship with CIM object models.

PORTFOLIO NEED View PPM Needs List

What are the portfolio needs in the area of your invention?
Listed in PPM Needs

EXPLOITATION & ENFORCEMENT

Question 1 - How easily can the use of the invention by a competitor be detected?
With work
Reason(s) for above Answer Comparing object model data to the GUI and plug-in in general will be needed. Not just for one console, but probably for several.
Question 2 - How easily can the use of the invention be avoided by a competitor?
With work
Reason(s) for above Answer We are not really sure. We'd like to discuss this with IPL attorneys.

BUSINESS VALUE

Question 1 - What percentage of the companies producing products in the field of this invention might use this invention?
Broadly cloned

Reason(s) for above Answer System Administration costs are a major problem for all customers from midsize on up. Microsoft is betting on the CIM object model, but does not yet have a way to generate an MMC plug-in from the CIM model - our invention does that, and we have it working today. Tivoli believes that there are serious problems with CIM and is working to produce a differrent object model, which will only make our generated plug-ins even better. CIM is an open standard, and Tivoli wants an open standard as well (maybe it is a future version of CIM). As these open standards catch on (and Microsoft is pushing all W2K products to provide CIM models already), management systems and custome solutions from such companies as Tivoli, BMC, and CA will need to consume these models directly. To do that they will be using the same algorithms that we are using to generate plug-ins. They may infact generate plug-ins as we do to consume the CIM object models into their existing offerings.

Question 2 - What is the value of this patent to current or anticipated Alliance Activity between IBM and other companies?

None anticipated

Reason(s) for above Answer We aren't aware of any alliance activity.

Question 3 - What is the value of this patent to current or anticipated Technology Transfer Activity between IBM and other companies?

Some value

Reason(s) for above Answer Tivoli may include this technology in their future tooling. Anyone developing a hardware or software solution that needs to tie into a management system (everyone) could be interested in this.

Question 4 - Does it result in prestige to IBM?

Industry wide

Reason(s) for above Answer IBM products will be able to support any management console that a customer may want to standardize, and be in compliance with open standards. All this with little cost to our product development teams. It should be cheaper to create the object model than to create even one plug-in (and we hope that the one model was the one they had to produce for Tivoli ready anyway).

Post Disclosure Text & Drawings

Enter any additional information relating to this disclosure below:

(Form Revised 12/17/97)

Disclosure RSW8-2000-0210

Created By: Kevin Barker **Created On:** [redacted] 03:02:13 PM
Last Modified By: Kevin Barker **Last Modified On:** [redacted] 07:47:17 AM

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Required fields are marked with the asterisk (*) and must be filled in to complete the form .

Summary

Status	Under Evaluation
Processing Location	RSW
Functional Area	Wicher: Integrated Solutions
Attorney/Patent Professional	Gerald R Woods/Raleigh/IBM
IDT Team	Steven Miller/Raleigh/IBM; Art Francis/Raleigh/IBM; David Kuehr-Mclaren/Tivoli Systems@Tivoli Systems; Allan K Edwards/Raleigh/IBM; Mark Peters/Raleigh/IBM; R Redpath/Raleigh/IBM; Scott Rich/Raleigh/IBM; Thom Haynes/Raleigh/IBM; Keith Purcell/Raleigh/IBM; Virinder Batra/Raleigh/IBM; Jay Casler/Raleigh/IBM
Submitted Date	[redacted] 04:16:15 PM
Owning Division Select	SWSD
PVT Score Calculate	To calculate a PVT score, use the 'Calculate PVT' button.
Incentive Program	
Lab	
Technology Code	

Inventors with Lotus Notes IDs

Inventors: Jim Thorpe/Raleigh/IBM, Kevin Barker/Raleigh/IBM@IBMUS, John Diller/Raleigh/IBM, Jim Gay/Raleigh/IBM, Margaret Hedstrom/Raleigh/IBM, Carol Persche/Raleigh/IBM, Mohamad Salahshoor/Raleigh/IBM

Inventor Name > denotes primary contact	Inventor Serial	Div/Dept	Manager Serial	Manager Name
Thorpe, J. G. (Jim)	042864	7J/Z4BA	436932	Palistrant, N.C. (Nell)
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Salahshoor, Mohamad R.	246173	7J/Z4BA	436932	Palistrant, N.C. (Nell)

Inventors without Lotus Notes IDs

IDT Selection

IDT Team:	Attorney/Patent Professional:
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Response Due to IP&L : [redacted]

Main Idea

***Title of disclosure (in English)**
An Algorithm for mapping UML topology model to a tree model

***Idea of disclosure**
1. Describe your invention, stating the problem solved (if appropriate), and indicating the advantages of using the invention.
There is a major industry trend to use software engineering tools and techniques such as the Unified Modeling Language (UML). A major portion of the UML deals with Classes and their associations. This class model is a topology which means it does not require a clear root object with containment for all other objects, or in other words does not map easily to a tree model which requires a root object and all object below having some sort of containment relationship. Today, many user interfaces support the Tree model, for example the program to show the file system and files on a computer is a tree model. In our work we are trying to model system administration using CIM (a derivative of UML) and display the resulting objects in a tree. The mapping algorithm we developed handles this, and can be applied to UML and trees in general, not just CIM and system administration models.

There have been attempts to map UML/CIM to a tree or browser interface before, Microsoft did this with their WMI browser. But their approach was very crude and the results were not very user friendly or easy to use. In their case they always display all possible information without trying to simplify or consolidate information. Doing this they show all CIM models equally well, but also are just a browser. The proposed solution provides a simpler more intuitive interface for the most common models and supports object creation, modification, method execution, and deletion.

The first step is to identify the root object. This can be done several different ways: 1)Require someone to specify the root class, 2)Based on class inheritance from a known class (in CIM we considered using CIM_SERVICE subclassing as a root candidate), or 3) Evaluate the model and make a guess. In our efforts we used options 1 and 2.

After identifying the root class, find all associations that the root class is a part of. The attached presentation covers the algorithm:

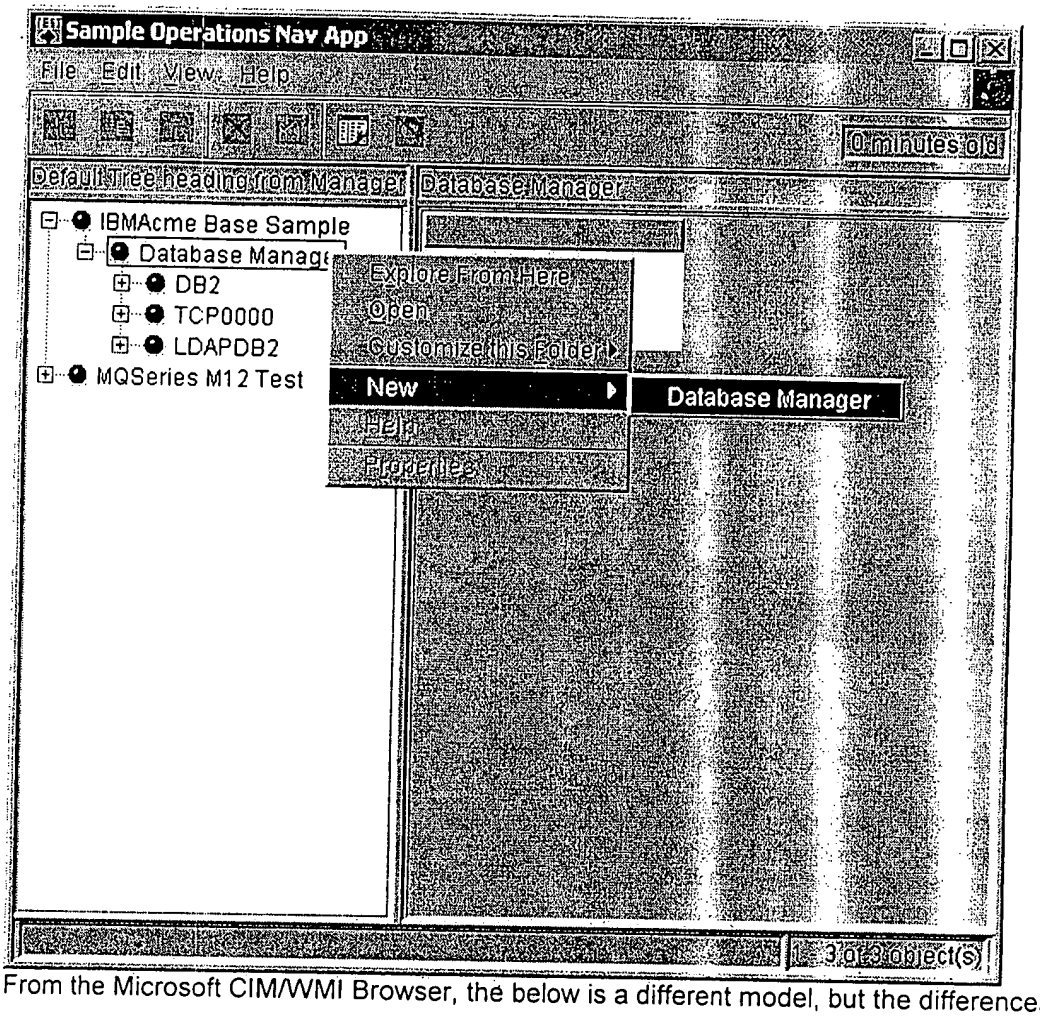
cim2treePatent.PRZ

For further information see patent application: RSW8-2000-0209. For PVT score please see patent application RSW8-2000-0209

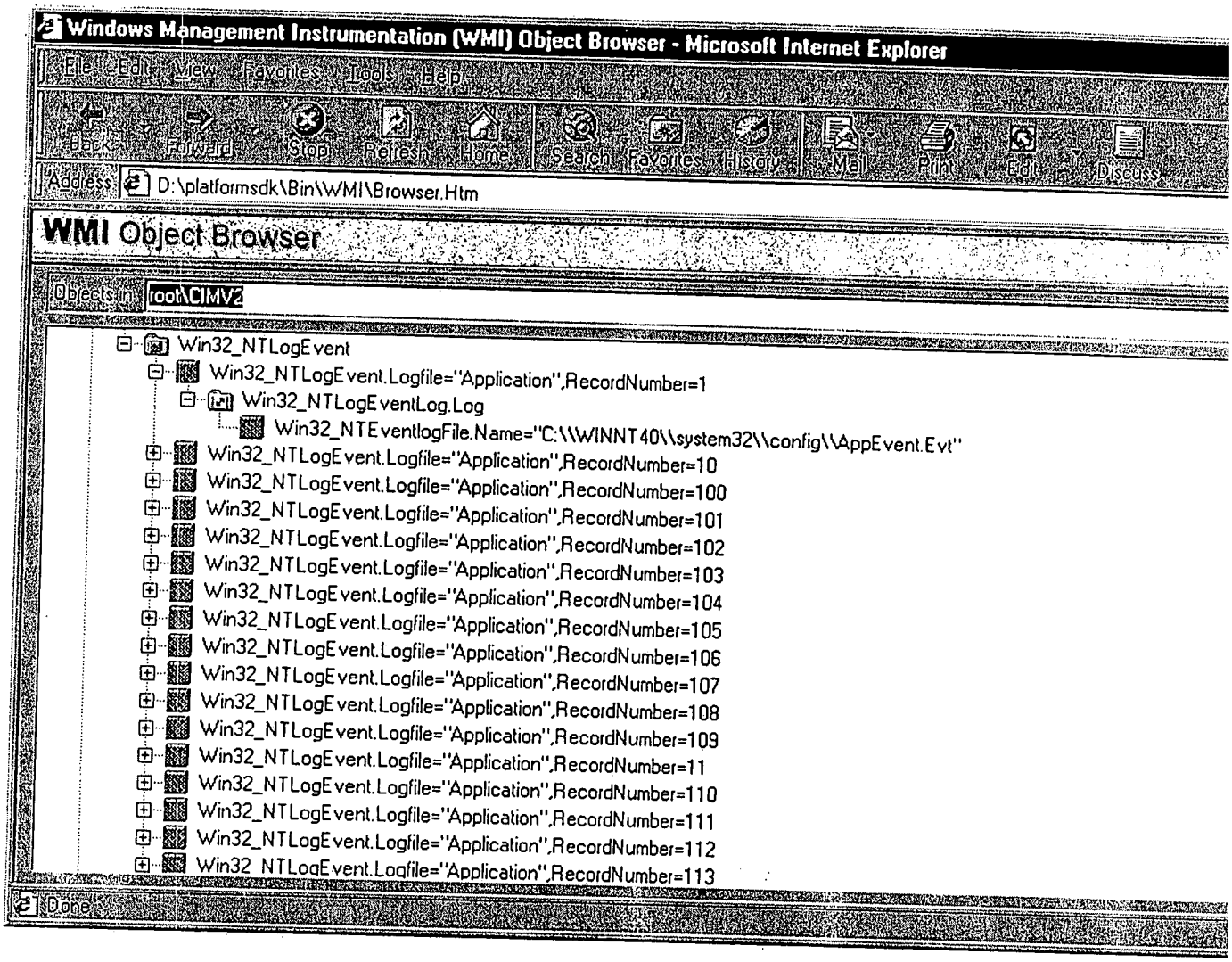
2. How does the invention solve the problem or achieve an advantage,(a description of "the invention", including figures inline as appropriate)?
See Above

3. If the same advantage or problem has been identified by others (inside/outside IBM), how have those others solved it and does your solution differ and why is it better?
Below are samples from our solution and Microsoft's CIM Browser:

Ours for IBMAcme Model



From the Microsoft CIM/WMI Browser, the below is a different model, but the differences can still be seen.



4. If the invention is implemented in a product or prototype, include technical details, purpose, disclosure details to others and the date of that implementation.
Working in conjunction with Tivoli, our organization has developed a proof of concept product for the above. We are still working with Tivoli and evaluating whether this becomes a Tivoli product or an internal IBM product. Results so far have been positive. The internal project completed [redacted]

***Critical Questions (Questions 1 - 7 must be answered)**

***Question 1**
On what date was the invention workable? [redacted] **Please format the date as MM/DD/YYYY**
(Workable means i.e. when you know that your design will solve the problem)

***Question 2**
Is there any planned or actual publication or disclosure of your invention to anyone outside IBM? ○ Yes ● No

If yes, Enter the name of each publication or patent and the date published below.
Publication/Patent:
Date Published or Issued:

Are you aware of any publications, products or patents that relate to this invention? ○ Yes ● No

If yes, Enter the name of each publication or patent and the date published below.
Publication/Patent:
Date Published or Issued:

***Question 3**
Has the subject matter of the invention or a product incorporating the invention been sold, used internally in manufacturing, announced for sale, or included in a proposal? ○ Yes ● No

Is a sale, use in manufacturing, product announcement, or proposal planned? ○ Yes ● No

If Yes, identify the product if known and indicate the date or planned date of sale, announcements, or proposal and to whom the sale, announcement or proposal has been or will be made.
Product:
Version/Release:
Code Name:
Date:
To Whom:
If more than one, use cut and paste and append as necessary in the field provided.

***Question 4**
Was the subject matter of your invention or a product incorporating your invention used in public, e.g., outside IBM or in the presence of non-IBMers? ○ Yes ● No

If yes, give a date. **Please format the date as MM/DD/YYYY**

***Question 5**
Have you ever discussed your invention with others not employed at IBM? ○ Yes ● No

If yes, identify individuals and date discussed. Fill in the text area with the following information, the names of the individuals, the employer, date discussed, under CDA, and CDA #.

***Question 6**
Was the invention, in any way, started or developed under a government contract or project? ○ Yes ● No ○ Not sure

If Yes, enter the contract number

***Question 7**
Was the invention made in the course of any alliance, joint development or other contract activities? ○ Yes ● No ○ Not Sure

If Yes, enter the following Name of Alliance, Contractor or Joint Developer
Contract ID number
Relationship contact name
Relationship contact E-mail
Relationship contact phone

Question 8
Have you submitted, or are you aware of, any related disclosure submission? ○ Yes ● No

If Yes, please provide the title and docket or disclosure number below:

Question 9
What type of companies do you expect to compete with inventions of this type? *Check all that apply.*

- [x] Manufacturers of enterprise servers
- [x] Manufacturers of entry servers
- [x] Manufacturers of workstations
- [x] Manufacturers of PC's
- [x] Non-computer manufacturers
- [x] Developers of operating systems
- [x] Developers of networking software
- [x] Developers of application software
- [x] Integrated solution providers
- [x] Service providers
- [ ] Other (Please specify below)

Patent Value Tool (Optional - this may be used by the inventor and attorney to assist with the evalu

(The Patent Value tool can be used by you or the evaluation team to determine the potential licensing value of your invention.)

The **Patent Value Tool** has not yet been used to calculate a score.

Post Disclosure Text & Drawings
Enter any additional information relating to this disclosure below:

(Form Revised 12/17/97)

CIM2 tree Patent. prz
9 pages

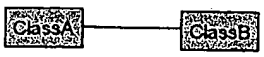
Associations

- Tree structures generally show containment and dependency.
- CIM Associations can be independent.
- Current solution:
  - Dependent (weak) associations only flow from independent (non-weak) objects to nested weak objects.
  - Independent associations can cycle in the tree. (Otherwise we need to navigate from leaves to upper portions of the tree.)

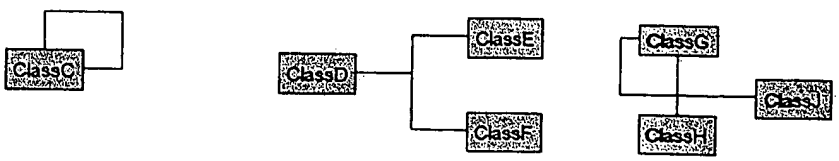
1

2 Types Of Associations

Simple



Complex: 2 refs to same class, or 3+ refs

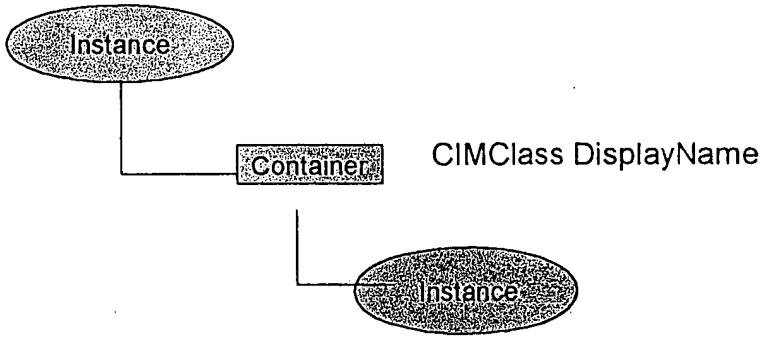


2

1 Assoc with only 2 refs

- Only use associations where the source instance is not in the role of a weak reference.
- If only one association from source class and only one reference in that association to the source class, then use the other role class as a container.

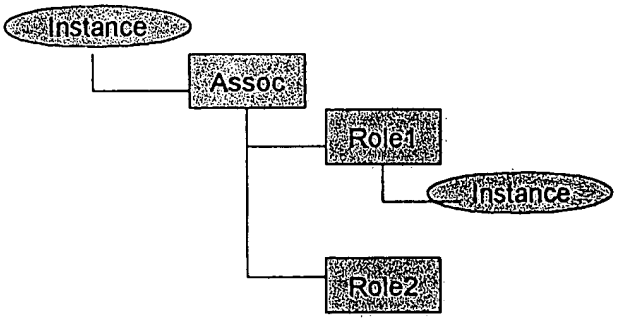
3



Plot Thickens Complex Associations

- Complex Associations: more than two references, or a class associated to itself.
  - Assume that the class association name is important and show the role names as well.
  - Do not show the role of the "parent" instance. So below the "Role2" node should not exist if it points back to the parent. A runtime decision.

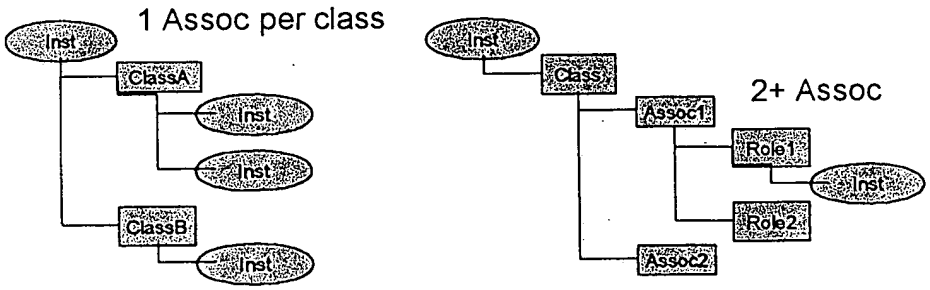
4



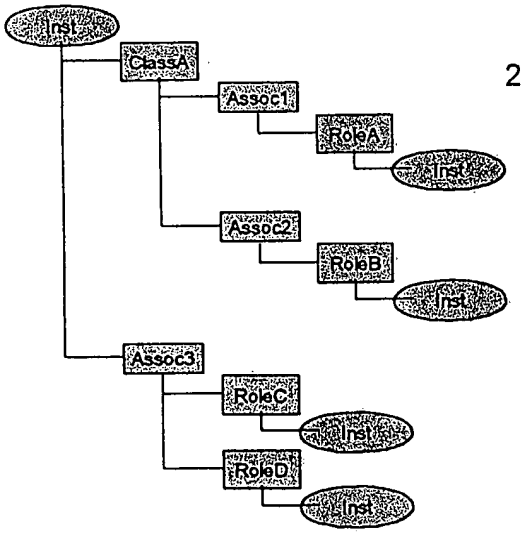
Multiple Associations

- All complex associations are handled as complex.
- For each CIM Class that is referenced by an association (different from the source class, that would be a complex class) check how many associations reference the class:
  - ▸ 1 Association: Use the class as a container followed by instances
  - ▸ 2+ Associations: Use the class as container of assoc and roles.

5



Complex Example



2 Simple Assoc to one Class

Complex Assoc:
3 refs/roles (show 2)

6

Algorithm

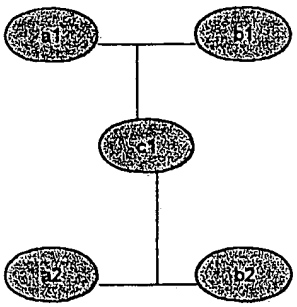
- Find all associations for an instances class (refer to this instance as the source).
- For each Association:
  - ▸ if the source class reference is weak, ignore this association (break)
  - ▸ if the association is complex (loopback ref or 3+ references) use the ASSOCIATION->ROLE->inst node model (what should we do about subclassing?) (If there is no loopback ref, then the ref/role that matches the source class is not displayed.)
- Should only have simple associations left now. With this set:
  - ▸ identify all target classes (anything other than the source) keeping track of each association that refers to each class.
  - ▸ For each of the target classes:
    - if only one association to the class use CLASS->inst
    - else use CLASS->ASSOC1-ROLE1, ->ASSOC2.... Remember to remove the role/ref used by the source class.
- For the above, when an association is weak (and not thrown out) we will allow a CREATE menu option. Also allow creation of subtypes of the target class.

7

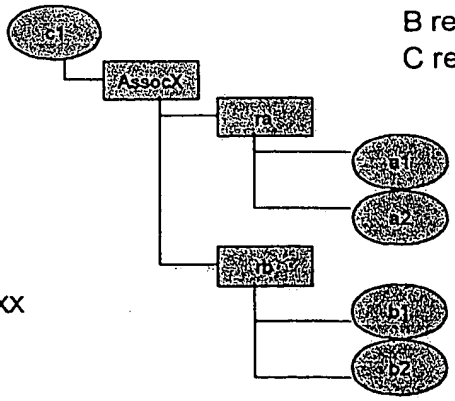
3+ Role Problem

- Loose info on what pieces are in an association. But this gets even more unclear when looking at the min/max qualifiers for each role. With min=1 on a ref, this smashing together of assoc instances is correct.

8



Two instances of assoc xxx



Assoc Class xxx
A ref ra
B ref rb
C ref rc

What each node needs

- What function and data is needed by each node in a navigation tree:
  - ► Display Name
  - ► Popup Menu
    - – methods
      - • ability to execute methods
    - – Create/Delete (possible or not and for what class/assoc)
    - – list of children (may require knowledge of parent nodes)

Disclosure RSW8-2000-0211

Created By: Mohamad Salahshoor **Created On:** [redacted] 10:20:24 AM
Last Modified By: Linda Dupont **Last Modified On:** [redacted] 07:48:11 AM

*** IBM Confidential ***

Required fields are marked with the asterisk (*) and must be filled in to complete the form.

Summary

Status	Under Evaluation
Processing Location	RSW
Functional Area	Wicher: Integrated Solutions
Attorney/Patent Professional	Gerald R Woods/Raleigh/IBM
IDT Team	Steven Miller/Raleigh/IBM; Art Francis/Raleigh/IBM; David Kuehr-Mclaren/Tivoli Systems@Tivoli Systems; Allan K Edwards/Raleigh/IBM; Mark Peters/Raleigh/IBM; R Redpath/Raleigh/IBM; Scott Rich/Raleigh/IBM; Thom Haynes/Raleigh/IBM; Keith Purcell/Raleigh/IBM; Virinder Batra/Raleigh/IBM; Jay Casler/Raleigh/IBM
Submitted Date	[redacted] 10:48:53 AM
Owning Division Select	SWSD
PVT Score Calculate	To calculate a PVT score, use the 'Calculate PVT' button.
Incentive Program	
Lab	
Technology Code	

Inventors with Lotus Notes IDs

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Inventor Name > denotes primary contact	Inventor Serial	Div/Dept	Manager Serial	Manager Name
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Thorpe, J. G. (Jim)	042864	7J/Z4BA	436932	Palistrant, N.C. (Nell)
Barker, Kevin S.	163121	7J/PE9A	463179	Reynolds, Patrick P.
Hedstrom, M. M. (Margaret)	017624	7J/Z4BA	436932	Palistrant, N.C. (Nell)
Persche, C.J. (Carol)	008791	7J/Z4BA	436932	Palistrant, N.C. (Nell)
Diller, J.E. (John)	600973	7J/Z4BA	436932	Palistrant, N.C. (Nell)
Gay, James L. (Jim)	928179	7J/Z4BA	436932	Palistrant, N.C. (Nell)

Inventors without Lotus Notes IDs

IDT Selection

IDT Team:	Attorney/Patent Professional:
Steven Miller/Raleigh/IBM Art Francis/Raleigh/IBM David Kuehr-Mclaren/Tivoli Systems@Tivoli Systems Allan K Edwards/Raleigh/IBM Mark Peters/Raleigh/IBM R Redpath/Raleigh/IBM Scott Rich/Raleigh/IBM Thom Haynes/Raleigh/IBM Keith Purcell/Raleigh/IBM Virinder Batra/Raleigh/IBM Jay Casler/Raleigh/IBM	Gerald R Woods/Raleigh/IBM

Response Due to IP&L : [redacted]

Main Idea

***Title of disclosure (in English)**
Mechanism for Mapping Business Defined Managed Objects to Console Neutral Graphical User Interface

***Idea of disclosure**
1. Describe your invention, stating the problem solved (if appropriate), and indicating the advantages of using the invention.
A technique is proposed for converting a managed object definition, described with a modeling language such as Extensible Markup Language or Managed Object Format, to a format suitable to be viewed and manipulated via graphical user interface, independent of the intended target console.

The invention provides a generic integration layer between an object, i.e management data, and display and behavior of that data. The invention involves a Transformation Engine that converts an object's , i.e a Managed Object, data definition to a formatted structure that is stored in a repository of choice. A Translation Engine renders the formatted structure into graphical user interface constructs that is independent of the target console architecture. The transformation and translation engines coordinate a set of processing objects that facilitate the display and manipulation of the object's data model.

The set of processing objects provide the mechanism for creation, modification, deletion and display and manipulation of the object's attributes
and properties. The transformation and the translation engines may be combined to provide the conversion and manipulation of the object's
data definitions and the corresponding behavior dynamically, all in one step.

The benefit to the user is the ability to standardize on a console of choice since this invention enables and provides a path for an object, i.e, a Managed Objects to work with multiple consoles architecture.

For further information, refer to patent RSW8-2000-0209 "System Management User Interface Framework for supporting Multiple Console Plug-ins".

For PVT rating refer to PVT scores for patent RSW8-2000-0209.

2. How does the invention solve the problem or achieve an advantage,(a description of "the invention", including figures inline as appropriate)?
We are trying to make sure the management model is rich enough to do the mapping from one definition to multiple consoles. This involves evaluating the management model passed as input.

As as result of evaluating the management model, we then generate needed GUI panels to support the model. The different panels could be generated for each of the consoles to conform to each consoles specific style. In our implementation, we generated the panels once and used the same panels in all plug-ins.

The above is performed by an algorithm which is used to take the mapping model and transform it into a suitable format to be viewed and manipulated via a graphical user interface, independent of the intended target console.

3. If the same advantage or problem has been identified by others (inside/outside IBM), how have those others solved it and does your solution differ and why is it better?
Each customer can decide which management console to standardize on for their company. Today, products must create custom plug-ins by hand for each console they want to support with little or no code re-use. With this solution, products create an object model once and can generate plug-ins for as many different consoles as needed.

4. If the invention is implemented in a product or prototype, include technical details, purpose, disclosure details to others and the date of that implementation.
Working in conjunction with Tivoli, our organization has developed a proof of concept product for the above. We are still working with Tivoli and evaluating whether this becomes a Tivoli product or an internal IBM product. Results so far have been positive. The internal project completed [redacted]

***Critical Questions (Questions 1 - 7 must be answered)**

***Question 1**
On what date was the invention workable? [redacted] **Please format the date as MM/DD/YYYY**
(Workable means i.e. when you know that your design will solve the problem)

***Question 2**
Is there any planned or actual publication or disclosure of your invention to anyone outside IBM? ○ Yes ● No

If yes, Enter the name of each publication or patent and the date published below.
Publication/Patent:
Date Published or Issued:

Are you aware of any publications, products or patents that relate to this invention? ○ Yes ● No

If yes, Enter the name of each publication or patent and the date published below.
Publication/Patent:
Date Published or Issued:

***Question 3**
Has the subject matter of the invention or a product incorporating the invention been sold, used internally in manufacturing, announced for sale, or included in a proposal? ○ Yes ● No

Is a sale, use in manufacturing, product announcement, or proposal planned? ○ Yes ● No

If Yes, identify the product if known and indicate the date or planned date of sale, announcements, or proposal and to whom the sale, announcement or proposal has been or will be made.
Product:
Version/Release:
Code Name:
Date:
To Whom:
If more than one, use cut and paste and append as necessary in the field provided.

***Question 4**
Was the subject matter of your invention or a product incorporating your invention used in public, e.g., outside IBM or in the presence of non-IBMers? ○ Yes ● No

If yes, give a date. **Please format the date as MM/DD/YYYY**

***Question 5**
Have you ever discussed your invention with others not employed at IBM? ○ Yes ● No

If yes, identify individuals and date discussed. Fill in the text area with the following information, the names

of the individuals, the employer, date discussed, under CDA, and CDA #.

Question 6
Was the invention, in any way, started or developed under a government contract or project?
○ Yes ● No ○ Not sure

If Yes, enter the contract number:

Question 7
Was the invention made in the course of any alliance, joint development or other contract activities?
○ Yes ● No ○ Not Sure

If Yes, enter the following: Name of Alliance, Contractor or Joint Developer
Contract ID number
Relationship contact name
Relationship contact E-mail
Relationship contact phone

Question 8
Have you submitted, or are you aware of, any related disclosure submission?
○ Yes ● No

If Yes, please provide the title and docket or disclosure number below:

Question 9
What type of companies do you expect to compete with inventions of this type? *Check all that apply.*
- ☒ Manufacturers of enterprise servers
- ☒ Manufacturers of entry servers
- ☒ Manufacturers of workstations
- ☒ Manufacturers of PC's
- ☒ Non-computer manufacturers
- ☒ Developers of operating systems
- ☒ Developers of networking software
- ☒ Developers of application software
- ☒ Integrated solution providers
- ☒ Service providers
- ☐ Other (Please specify below)

Patent Value Tool (Optional - this may be used by the inventor and attorney to assist with the evalu

(The Patent Value tool can be used by you or the evaluation team to determine the potential licensing value of your invention.)

The **Patent Value Tool** has not yet been used to calculate a score.

Post Disclosure Text & Drawings
Enter any additional information relating to this disclosure below:

(Form Revised 12/17/97)

Disclosure RSW8-2000-0212

Created By: Jim Thorpe **Created On:** [redacted] 09:24:33 AM
Last Modified By: Jim Thorpe **Last Modified On:** [redacted] 12:45:20 PM

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Required fields are marked with the asterisk (*) and must be filled in to complete the form .

Summary

Status	Under Evaluation
Processing Location	RSW
Functional Area	Wicher: Integrated Solutions
Attorney/Patent Professional	Gerald R Woods/Raleigh/IBM
IDT Team	Steven Miller/Raleigh/IBM; Art Francis/Raleigh/IBM; David Kuehr-Mclaren/Tivoli Systems@Tivoli Systems; Allan K Edwards/Raleigh/IBM; Mark Peters/Raleigh/IBM; R Redpath/Raleigh/IBM; Scott Rich/Raleigh/IBM; Thom Haynes/Raleigh/IBM; Keith Purcell/Raleigh/IBM; Virinder Batra/Raleigh/IBM; Jay Casler/Raleigh/IBM
Submitted Date	[redacted] 09:33:44 AM
Owning Division Select	SWSD
PVT Score Calculate	To calculate a PVT score, use the 'Calculate PVT' button.
Incentive Program	
Lab	
Technology Code	

Inventors with Lotus Notes IDs

Inventors: Jim Thorpe/Raleigh/IBM, Kevin Barker/Raleigh/IBM, Margaret Hedstrom/Raleigh/IBM, John Diller/Raleigh/IBM, Mohamad Salahshoor, Carol Persche/Raleigh/IBM@IBMUS

Inventor Name > denotes primary contact	Inventor Serial	Div/Dept	Manager Serial	Manager Name
Thorpe, J. G. (Jim)	042864	7J/Z4BA	436932	Palistrant, N.C. (Nell)
Barker, Kevin S.	163121	7J/PE9A	463179	Reynolds, Patrick P.
> Hedstrom, M. M. (Margaret)	017624	7J/Z4BA	436932	Palistrant, N.C. (Nell)
Diller, J.E. (John)	600973	7J/Z4BA	436932	Palistrant, N.C. (Nell)
Mohamad Salahshoor	N/A	N/A	N/A	N/A
Persche, C.J. (Carol)	008791	7J/Z4BA	436932	Palistrant, N.C. (Nell)

Inventors without Lotus Notes IDs

IDT Selection

IDT Team:	Attorney/Patent Professional:
Steven Miller/Raleigh/IBM Art Francis/Raleigh/IBM David Kuehr-Mclaren/Tivoli Systems@Tivoli Systems Allan K Edwards/Raleigh/IBM Mark Peters/Raleigh/IBM R Redpath/Raleigh/IBM Scott Rich/Raleigh/IBM Thom Haynes/Raleigh/IBM Keith Purcell/Raleigh/IBM Virinder Batra/Raleigh/IBM Jay Casler/Raleigh/IBM	Gerald R Woods/Raleigh/IBM

Response Due to IP&L : [redacted]

Main Idea

***Title of disclosure (in English)**
A scheme for handling translatable strings in CIM elements

***Idea of disclosure**
1. Describe your invention, stating the problem solved (if appropriate), and indicating the advantages of using the invention.
Native CIM support for NLS translations is not very easy to implement because the translated values for each country are interspersed throughout the input data, especially when using the MOF format (Managed Object Format). To make it easy to handle translation for many countries, it is best if the strings needing translation can be isolated into one data file per country.

For further information see patent application: RSW8-2000-0209. For PVT score please see patent application RSW8-2000-0209

2. How does the invention solve the problem or achieve an advantage,(a description of "the invention", including figures inline as appropriate)?
Our solution was to extract the strings that need to be translated into a separate file for each country. A separate runtime file is then generated for each country/locale being supported. By creating a unique ID for each string, we can then locate the string for the particular locale of interest at runtime.

If the string of interest is not located in one of the special locale files, then the standard CIM data is used to find the string. This allows us to support the standard CIM format, as well.

An alternative way to solve this problem would have been to separate the translatable strings into separate files per country, translate them, and then merge them back into the standard CIM format. However, this approach would not be as easily maintained as the approach we choose.

Our implementation used Java resource bundles for the NLS files, but this same principle could be applied to any programming language that supports locale-specific strings.

3. If the same advantage or problem has been identified by others (inside/outside IBM), how have those others solved it and does your solution differ and why is it better?
Each customer can decide which management console to standardize on for their company. Today, products must create custom plug-ins by hand for each console they want to support with little or no code re-use. With this solution, products create an object model once and can generate plug-ins for as many different consoles as needed.

4. If the invention is implemented in a product or prototype, include technical details, purpose, disclosure details to others and the date of that implementation.
Working in conjunction with Tivoli, our organization has developed a proof of concept product for the above. We are still working with Tivoli and evaluating whether this becomes a Tivoli product or an internal IBM product. Results so far have been positive. The internal project completed [redacted]

***Critical Questions (Questions 1 - 7 must be answered)**

***Question 1** On what date was the invention workable? [redacted] **Please format the date as MM/DD/YYYY** (Workable means i.e. when you know that your design will solve the problem)

***Question 2**	

Is there any planned or actual publication or disclosure of your invention to anyone outside IBM?	○ Yes ● No
If yes, Enter the name of each publication or patent and the date published below. Publication/Patent: Date Published or Issued:	
Are you aware of any publications, products or patents that relate to this invention?	○ Yes ● No
If yes, Enter the name of each publication or patent and the date published below. Publication/Patent: Date Published or Issued:	

*Question 3 Has the subject matter of the invention or a product incorporating the invention been sold, used internally in manufacturing, announced for sale, or included in a proposal?	○ Yes ● No
Is a sale, use in manufacturing, product announcement, or proposal planned?	○ Yes ● No
If Yes, identify the product if known and indicate the date or planned date of sale, announcements, or proposal and to whom the sale, announcement or proposal has been or will be made. Product: Version/Release: Code Name: Date: To Whom: If more than one, use cut and paste and append as necessary in the field provided.	

*Question 4 Was the subject matter of your invention or a product incorporating your invention used in public, e.g., outside IBM or in the presence of non-IBMers?	○ Yes ● No
If yes, give a date. **Please format the date as MM/DD/YYYY**	

*Question 5 Have you ever discussed your invention with others not employed at IBM?	○ Yes ● No
If yes, identify individuals and date discussed. Fill in the text area with the following information, the names of the individuals, the employer, date discussed, under CDA, and CDA #.	

*Question 6 Was the invention, in any way, started or developed under a government contract or project?	○ Yes ● No ○ Not sure
If Yes, enter the contract number	

*Question 7 Was the invention made in the course of any alliance, joint development or other contract activities?	○ Yes ● No ○ Not Sure
If Yes, enter the following :Name of Alliance, Contractor or Joint Developer	
Contract ID number	
Relationship contact name	
Relationship contact E-mail	
Relationship contact phone	

Question 8	

Have you submitted, or are you aware of, any related disclosure submission? ○ Yes ● No

If Yes, please provide the title and docket or disclosure number below:

Question 9

What type of companies do you expect to compete with inventions of this type? *Check all that apply.*

- ☒ Manufacturers of enterprise servers
- ☒ Manufacturers of entry servers
- ☒ Manufacturers of workstations
- ☒ Manufacturers of PC's
- ☒ Non-computer manufacturers
- ☒ Developers of operating systems
- ☒ Developers of networking software
- ☒ Developers of application software
- ☒ Integrated solution providers
- ☒ Service providers
- ☐ Other (Please specify below)

Patent Value Tool (Optional - this may be used by the inventor and attorney to assist with the evalu

(The Patent Value tool can be used by you or the evaluation team to determine the potential licensing value of your invention.)

The **Patent Value Tool** has not yet been used to calculate a score.

Post Disclosure Text & Drawings

Enter any additional information relating to this disclosure below:

(Form Revised 12/17/97)

Disclosure RSW8-2000-0213

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Required fields are marked with the asterisk (*) and must be filled in to complete the form.

Summary

Status	Under Evaluation
Processing Location	RSW
Functional Area	Wicher: Integrated Solutions
Attorney/Patent Professional	Gerald R Woods/Raleigh/IBM
IDT Team	Steven Miller/Raleigh/IBM; Art Francis/Raleigh/IBM; David Kuehr-Mclaren/Tivoli Systems@Tivoli Systems; Allan K Edwards/Raleigh/IBM; Mark Peters/Raleigh/IBM; R Redpath/Raleigh/IBM; Scott Rich/Raleigh/IBM; Thom Haynes/Raleigh/IBM; Keith Purcell/Raleigh/IBM; Virinder Batra/Raleigh/IBM; Jay Casler/Raleigh/IBM
Submitted Date	[redacted] 09:23:55 AM
Owning Division Select	SWSD
PVT Score Calculate	To calculate a PVT score, use the 'Calculate PVT' button.
Incentive Program	
Lab	
Technology Code	

Inventors with Lotus Notes IDs

Inventors: Jim Thorpe/Raleigh/IBM, Kevin Barker/Raleigh/IBM, John Diller/Raleigh/IBM, Margaret Hedstrom/Raleigh/IBM, Carol Persche/Raleigh/IBM

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Thorpe, J. G. (Jim)	042864	7J/Z4BA	436932	Palistrant, N.C. (Nell)
Barker, Kevin S.	163121	7J/PE9A	463179	Reynolds, Patrick P.
Diller, J.E. (John)	600973	7J/Z4BA	436932	Palistrant, N.C. (Nell)
> Hedstrom, M. M. (Margaret)	017624	7J/Z4BA	436932	Palistrant, N.C. (Nell)
Persche, C.J. (Carol)	008791	7J/Z4BA	436932	Palistrant, N.C. (Nell)

Inventors without Lotus Notes IDs

IDT Selection

IDT Team:	Attorney/Patent Professional:
Steven Miller/Raleigh/IBM Art Francis/Raleigh/IBM David Kuehr-Mclaren/Tivoli Systems@Tivoli Systems Allan K Edwards/Raleigh/IBM Mark Peters/Raleigh/IBM R Redpath/Raleigh/IBM Scott Rich/Raleigh/IBM Thom Haynes/Raleigh/IBM Keith Purcell/Raleigh/IBM Virinder Batra/Raleigh/IBM Jay Casler/Raleigh/IBM	Gerald R Woods/Raleigh/IBM

Response Due to IP&L : [redacted]

Main Idea

***Title of disclosure (in English)**
An algorithm/method for obtaining context menu items from UML/CIM

***Idea of disclosure**
1. Describe your invention, stating the problem solved (if appropriate), and indicating the advantages of using the invention.

UML/CIM with extentions gives us the ability to describe software products. The technology exists to create different plug-ins to consoles that
alow users to perform certain tasks, in our case we are creating plug-ins for products that allow end users to administer those products for the console. However, we are supporting plug-ins for more than one console, and we need the user interface to be the same in each console.

One of the functions needed by each console is the ability to provide the user with tasks that can be perfomed against objects in the console, namely objects to be administered. This necessitated providing a common way to obtain the list of these tasks for presentation to the end user in his language.

Furthermore, we also needed to actually perform the tasks selected by the user and report the results to the user in a consistent fashion across all consoles.

For further information see patent application: RSW8-2000-0209. For PVT score please see patent application RSW8-2000-0209

2. How does the invention solve the problem or achieve an advantage,(a description of "the invention", including figures inline as appropriate)?
Our solution involved identifying the information needed for the tasks and providing common methods to be called to retrieve this information. We accomplished this by querying the CIM (or object model data) data for the appropriate information needed for the tasks, including how the information is to be displayed to the user (in his language), how the actual task is to be invoked, and whether the user needs to be presented with some tasks that spawn other tasks (for example, create a new object could spawn a list of new object types that the user could choose from). We also provided a common way to invoke the task selected by the user, as well as to display the results of performing the task chosen.

3. If the same advantage or problem has been identified by others (inside/outside IBM), how have those others solved it and does your solution differ and why is it better?
Each customer can decide which management console to standardize on for their company. Today, products must create custom plug-ins by hand for each console they want to support with little or no code re-use. With this solution, products create an object model once and can generate plug-ins for as many different consoles as needed.

4. If the invention is implemented in a product or prototype, include technical details, purpose, disclosure details to others and the date of that implementation.
Working in conjunction with Tivoli, our organization has developed a proof of concept product for the above. We are still working with Tivoli and evaluating whether this becomes a Tivoli product or an internal IBM product. Results so far have been positive. The internal project completed [redacted]

***Critical Questions (Questions 1 - 7 must be answered)**

***Question 1**

Relationship contact phone

Question 8
Have you submitted, or are you aware of, any related disclosure submission? ○ Yes ● No
If Yes, please provide the title and docket or disclosure number below:

Question 9
What type of companies do you expect to compete with inventions of this type? *Check all that apply.*

- ☒ Manufacturers of enterprise servers
- ☒ Manufacturers of entry servers
- ☒ Manufacturers of workstations
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- ☒ Developers of networking software
- ☒ Developers of application software
- ☒ Integrated solution providers
- ☒ Service providers
- ☐ Other (Please specify below)

Patent Value Tool (Optional - this may be used by the inventor and attorney to assist with the evalu

(The Patent Value tool can be used by you or the evaluation team to determine the potential licensing value of your invention.)

The **Patent Value Tool** has not yet been used to calculate a score.

Post Disclosure Text & Drawings
Enter any additional information relating to this disclosure below:

(Form Revised 12/17/97)

On what date was the invention workable? [redacted] **Please format the date as MM/DD/YYYY**
(Workable means i.e. when you know that your design will solve the problem)

***Question 2** Is there any planned or actual publication or disclosure of your invention to anyone outside IBM?	○ Yes ● No
If yes, Enter the name of each publication or patent and the date published below. Publication/Patent: Date Published or Issued:	
Are you aware of any publications, products or patents that relate to this invention?	○ Yes ● No
If yes, Enter the name of each publication or patent and the date published below. Publication/Patent: Date Published or Issued:	

***Question 3** Has the subject matter of the invention or a product incorporating the invention been sold, used internally in manufacturing, announced for sale, or included in a proposal?	○ Yes ● No
Is a sale, use in manufacturing, product announcement, or proposal planned?	○ Yes ● No
If Yes, identify the product if known and indicate the date or planned date of sale, announcements, or proposal and to whom the sale, announcement or proposal has been or will be made. Product: Version/Release: Code Name: Date: To Whom: If more than one, use cut and paste and append as necessary in the field provided.	

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***Question 6** Was the invention, in any way, started or developed under a government contract or project?	○ Yes ● No ○ Not sure
If Yes, enter the contract number	

***Question 7** Was the invention made in the course of any alliance, joint development or other contract activities?	○ Yes ● No ○ Not Sure
If Yes, enter the following :Name of Alliance, Contractor or Joint Developer	
Contract ID number	
Relationship contact name	
Relationship contact E-mail	

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Disclosure RSW8-2000-0224

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Last Modified By: Margaret Hedstrom **Last Modified On:** [redacted] 11:20:28 AM

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Required fields are marked with the asterisk (*) and must be filled in to complete the form .

Summary

Status	Submitted
Processing Location	RSW
Functional Area	Wicher: Integrated Solutions
Attorney/Patent Professional	Gerald R Woods/Raleigh/IBM
IDT Team	Steven Miller/Raleigh/IBM; Art Francis/Raleigh/IBM; David Kuehr-Mclaren/Tivoli Systems@Tivoli Systems; Allan K Edwards/Raleigh/IBM; Mark Peters/Raleigh/IBM; R Redpath/Raleigh/IBM; Scott Rich/Raleigh/IBM; Thom Haynes/Raleigh/IBM; Keith Purcell/Raleigh/IBM; Virinder Batra/Raleigh/IBM; Jay Casler/Raleigh/IBM
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Owning Division Select	SWSD
PVT Score Calculate	To calculate a PVT score, use the 'Calculate PVT' button.
Incentive Program	
Lab	
Technology Code	

Inventors with Lotus Notes IDs

Inventors: Margaret Hedstrom/Raleigh/IBM, Kevin Barker/Raleigh/IBM, Mohamad Salahshoor/Raleigh/IBM

Inventor Name > denotes primary contact	Inventor Serial	Div/Dept	Manager Serial	Manager Name
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Main Idea

***Title of disclosure (in English):**

Algorithm for Obtaining Display Names for CIM Elements

***Idea of disclosure**

1. Describe your invention, stating the problem solved (if appropriate), and indicating the advantages of using the invention.
The Problem:

As part of an application that generates a user-friendly system administration console from a CIM-based definition of the objects to be managed, it was necessary to devise an algorithm for generating user-friendly display names for the objects being managed, as well as user-friendly names for the attributes of those objects, actions that can be performed on those objects, instances of those objects, etc.

For further information see patent application: RSW8-2000-0209. For PVT score please see patent application RSW8-2000-0209

2. How does the invention solve the problem or achieve an advantage,(a description of "the invention", including figures inline as appropriate)?
The Solution:

To determine the display name for a **non-instance element**, we used the following heirarchy:

1. If the element has a CIM qualifier of "DisplayName", then that name is used (using the appropriate NLS-d version of this name).
2. If there is no CIMQualifier of "DisplayName" then ~~the appropriate NLS version of the name of the CIM element is used~~. raw CIM element name used

To determine the display name for an **instance**, we used the following heirarchy:

1. If the instance has a CIM qualifier of "DisplayName", then that name is used (using the appropriate NLS-d version of this name).
2. If there is no CIMQualifier of "DisplayName" then:
   - If there is only one non-propagated key property, then the value of that property is used. For example: *DB2*, when DBManagerName is the only non-propagated key property.
   - If there is more than one non-propagated key property, then a display name is constructed from each non-propagated key property, by specifying the NLS-d name of the key property, followed by and equal sign, followed by the value of the property; a comma separates these name/value pairs. For example:

     DBManagerCreationClassName=IBMDB2_DatabaseManager, DBManagerName=DB2

     when both DBManagerCreationClassName and DBManagerName are both non-propagated key properties.

non prop key name — non prop key value — nor

For further information on how the NLS-d versions of names are obtained, see Disclosure RSW8-2000-0212 "A scheme for handling translatable strings in CIM elements".

Also, note that the names of the CIM elements and the Display Names are obtained from the same Resource Bundle that is used for the GUI Panels (see Disclosure RSW8-2000-0211 "Mechanism for Mapping Business Defined Managed Objects to Console Neutral Graphical User Interface"). If no ResourceBundle is present, then the name of the CIM element itself is obtained from CIM. If the translated strings are provided in the CIM data, then the name will still be properly NLS-d.

3. If the same advantage or problem has been identified by others (inside/outside IBM), how have those others solved it and does your solution differ and why is it better?
Microsoft's CIM Studio would show the *DB2* node in the example above as:
CreationClassName = "IBMDB2_DatabaseManager", Name = "DB2",SystemName = "MYHOST"
This is a very non-user-friendly way to show the Database Manager that the user knows as *DB2*.

4. If the invention is implemented in a product or prototype, include technical details, purpose, disclosure details to others and the date of that implementation.
Working in conjunction with Tivoli, our organization has developed a proof of concept product for the above. We are still working with Tivoli and evaluating whether this becomes a Tivoli product or an internal IBM product. Results so far have been positive. The internal project completed [redacted]

***Critical Questions (Questions 1 - 7 must be answered)**

***Question 1**
On what date was the invention workable? [redacted] **Please format the date as MM/DD/YYYY**
(Workable means i.e. when you know that your design will solve the problem)

***Question 2** Is there any planned or actual publication or disclosure of your invention to anyone outside IBM?	○ Yes ● No
If yes, Enter the name of each publication or patent and the date published below. Publication/Patent: Date Published or Issued:	
Are you aware of any publications, products or patents that relate to this invention?	○ Yes ● No
If yes, Enter the name of each publication or patent and the date published below. Publication/Patent: Date Published or Issued:	

***Question 3** Has the subject matter of the invention or a product incorporating the invention been sold, used internally in manufacturing, announced for sale, or included in a proposal?	○ Yes ● No
Is a sale, use in manufacturing, product announcement, or proposal planned?	○ Yes ● No
If Yes, identify the product if known and indicate the date or planned date of sale, announcements, or proposal and to whom the sale, announcement or proposal has been or will be made. Product: Version/Release: Code Name: Date: To Whom: If more than one, use cut and paste and append as necessary in the field provided.	

***Question 4** Was the subject matter of your invention or a product incorporating your invention used in public, e.g., outside IBM or in the presence of non-IBMers?	○ Yes ● No

If yes, give a date. **Please format the date as MM/DD/YYYY**

*Question 5 Have you ever discussed your invention with others not employed at IBM?	○ Yes ● No
If yes, identify individuals and date discussed. Fill in the text area with the following information, the names of the individuals, the employer, date discussed, under CDA, and CDA #.	

*Question 6 Was the invention, in any way, started or developed under a government contract or project?	○ Yes ● No ○ Not sure
If Yes, enter the contract number.	

*Question 7 Was the invention made in the course of any alliance, joint development or other contract activities?	○ Yes ● No ○ Not Sure
If Yes, enter the following. Name of Alliance, Contractor or Joint Developer	
Contract ID number	
Relationship contact name	
Relationship contact E-mail	
Relationship contact phone	

Question 8 Have you submitted, or are you aware of, any related disclosure submission?	○ Yes ● No
If Yes, please provide the title and docket or disclosure number below.	

Question 9
What type of companies do you expect to compete with inventions of this type? *Check all that apply.*

- ☒ Manufacturers of enterprise servers
- ☒ Manufacturers of entry servers
- ☒ Manufacturers of workstations
- ☒ Manufacturers of PCs
- ☒ Non-computer manufacturers
- ☒ Developers of operating systems
- ☒ Developers of networking software
- ☒ Developers of application software
- ☒ Integrated solution providers
- ☒ Service providers
- ☐ Other (Please specify below)

Patent Value Tool (Optional - this may be used by the inventor and attorney to assist with the evalu

(The Patent Value tool can be used by you or the evaluation team to determine the potential licensing value of your invention.)

The **Patent Value Tool** has not yet been used to calculate a score.

Post Disclosure Text & Drawings

Enter any additional information relating to this disclosure below:

(Form Revised 12/17/97)